Torres, Francine

From: jivan@tigersul.com%inter2 [jivan@tigersul.com] on behalf of jivan@tigersul.com
Sent: Tuesday, August 16, 2005 12:11 AM
To: National List
Cc: codonnell@tigersul.com%inter2
Subject: Docket # TM-04-07 Elemental sulphur
Attachments: ATTACHMENT.TXT

Attn: Arthur Neal, Director, Program Administration, National Organic Program, USDA – AMS- TMP- NOP.

Docket # TM – 04- 07

Re: Tiger Organic 0-0-0-90 (Elemental Sulphur) classification, EnviroSul Iron 22% + S (Iron micronutrient) classification.

The examination by our internal research group of Federal Register Vol.70,No 116/Friday June 17, 2005/Proposed Rules indicates the following.

(1) 205.601 Synthetic substances allowed for use in organic crop production (i) (9) clearly identifies Elemental Sulfur as such a permitted synthetic substance for use in disease control in organic crop production.

The elemental sulphur used in the production of Tiger Organic 0-0-0-90 and its related formulations is synthesized from hydrogen sulphide and is warranted 99.90+% pure

(2) 205.601 (j) (2) likewise identifies said Elemental Sulfur as such a permitted substance for use as a plant or soil amendment.

(3) 205.601 (e) (4) likewise identifies said sulphur as such a permitted substance for use as an insecticide

(4) 205.605 Nonagricultural (nonorganic) substances allowed as ingredients in or on processing products labeled "organic" or "made with organic (specified ingredients or food groups(s))" (a) No synthetics allowed includes Bentonite.

Bentonite is a secondary significant component of Tiger Organic 0-0-0-90 formulation.

(5) 205.601 (j) (6) identifies as a permitted plant or soil amendment Micronutrients provided they are not used as a defoliant, herbicide or desiccant.

Micronutrients, when used in Tiger Organic 0-0-0-90 formulations are soil applied as ENVIROSUL products and are used as plant and soil amendments not as defoliants, herbicides or desiccants.

Thus all of the components of Tiger Organic 0-0-0-90 fertilizer formulations are identified as being **permissible** components of products used in the production of **organic crops** under the Proposed Rules.

In addition it should be noted that the components used in the production of Tiger Organic 0-0-0-90 fertilizer formulations and Envirosul Iron 22% + S Micronutrient formulations are warranted to contain levels of heavy metals that are well below the permitted levels for application to soil (see attached analyses 1a).

Synthetic sulfur (synthesized from hydrogen sulfide) has been "high temperature distilled" in the Claus SRU manufacturing process and is 99.90+% pure.

Tiger Organic 0-0-0-90 Elemental sulphur provides many benefits to organic crops such as:

Soil amending – The reduction and buffering of high pH soils, resulting in a reduction of salts and sodium resulting in an increased uptake of phosphate and other micronutrients due to the improved soil conditions.

Non leaching properties - Tiger Organic 0-0-0-90 is not soluble in it's original form and soil organism (Thiobacilli Thioxidants) feed off the sulphur and convert the sulphur to plant available S04-. The result is the formation of sulfuric acid. The soil population of the sulphur oxidizing bacteria is also increased as a result of the application of Tiger Organic 0-0-0-90 sulphur.

Conversion over time – As above the conversion of the Tiger Organic 0-0-0-90 (Elemental sulphur) occurs over time due to:

- Soil temperature
- Thiobacilli populations
- Moisture conditions
- Sulphur particle size

This results in a continual feeding of plant nutrient sulphur for plants. On soils prone to leaching the continual release of S04- occurs at the point of application and leaching losses are minimized, resulting in less runoff when compared to commercial sulfate fertilizers.

EnviroSul Iron 22% + S Micronutrients provides many benefits to organic crops such as:

Soil amending – As the micronutrient oxide source is embedded into the sulphur bentonite matrix, we see a reduction and buffering of high pH soils, resulting in a reduction of salts and sodium resulting in an increased uptake of phosphate and other micronutrients due to the improved soil conditions. Iron availability increases dramatically as soil pH is decreased.

Non leaching properties - Envirosul Iron 22% + S is not soluble in it's original form and soil organism (Thiobacilli Thioxidants) feed off the sulphur and convert the sulphur to plant available S04-.and soluble Iron. The result is the formation of sulfuric acid which solublizes the fine particulate Iron oxide. The soil population of the sulphur oxidizing bacteria is also increased as a result of the application of EnviroSul Iron 22% + S.

Conversion over time – As above the conversion of the EnviroSul Iron 22% + S (Elemental / Iron oxide sulphur) occurs over time due to:

- Soil temperature
- Thiobacilli populations
- Moisture conditions
- Sulphur particle size

This results in a continual feeding of plant nutrient sulphur and Iron micronutrient for plants. On soils prone to leaching the continual release of S04- occurs at the point of application and leaching losses are minimized, resulting in less runoff when compared to commercial Micronutrient sulfate fertilizers.

We would respectfully request that Tiger Organic 0-0-0-90 and Envirosul Iron 22% + S Micronutrient products be recognized as meeting the requirements for use in the production of crops labeled as "organic" under the Proposed Rules.

1a.

EnviroSul Iron 22% + S micronutrient Heavy Metal Analysis

Heavy Metal Analysis	mg/kg
Mercury	non detected
Selenium	non detected
Lead	non detected
Nickel	5.1

Molybendum	1.1
Cobalt	4.5
Cadmium	non detected
Arsenic	non detected
Chromium	non detected

Jeff Ivan
Manager of Marketing and Business Development
Tiger-Sul Products
(780) 494-2788 office
(780) 494-2789 fax
(780) 518-3598 cell
jivan@tigersul.com